



## SEQUENCE LISTING

RECEIVED

AUG 26 2002

TECH CENTER 1600/2900

<110> Hoechst Marion Roussel  
Bordon-Pallier, F.  
Rocher, C.

<120> Human htFIIIA gene and coded htFIIIA protein

<130> 146.1364

<140> US 09/831,426

<141> 2001-05-08

<160> 10

<170> PatentIn Vers. 2.0

<210> 1

<211> 1273

<212> DNA

<213> Human

<220>

<221> CDS

<222> (176)..(1270)

<400> 1

atgcgcagca gcggcgccga cgcggggcgg tgcttggtga ccgcgcgcgc tcccggaagt 60  
gtgcggcggt cgcgcgaagg ttcagcaggg agccgtgggc cgggcgcgcgc ggttcccggc 120  
acgtgtctcg gcacgtggca gcgcgcctgg ccctgggctt ggaggcgccg gcgcc ctg 178  
Met  
1  
gat ccg ccg gcc gtg gtc gcc gag tcg gtg tcg tcc ttg acc atc gcc 226  
Asp Pro Pro Ala Val Val Ala Glu Ser Val Ser Ser Leu Thr Ile Ala  
5 10 15  
gac gcg ttc att gca gcc ggc gag agc tca gct ccg acc ccg ccg cgc 274  
Asp Ala Phe Ile Ala Ala Gly Glu Ser Ser Ala Pro Thr Pro Pro Arg  
20 25 30  
ccc gcg ctt ccc agg agg ttc atc tgc tcc ttc cct gac tgc agc gcc 322  
Pro Ala Leu Pro Arg Arg Phe Ile Cys Ser Phe Pro Asp Cys Ser Ala  
35 40 45  
aat tac agc aaa gcc tgg aag ctt gac gcg cac ctg tgc aag cac acg 370  
Asn Tyr Ser Lys Ala Trp Lys Leu Asp Ala His Leu Cys Lys His Thr  
50 55 60 65  
ggg gag aga cca ttt gtt tgt gac tat gaa ggg tgt ggc aag gcc ttc 418  
Gly Glu Arg Pro Phe Val Cys Asp Tyr Glu Gly Cys Gly Lys Ala Phe  
70 75 80  
atc agg gac tac cat ctg agc cgc cac att ctg act cac aca gga gaa 466

Ile Arg Asp Tyr His Leu Ser Arg His Ile Leu Thr His Thr Gly Glu  
85 90 95

aag ccg ttt gtt tgt gca gcc act ggc tgt gat caa aaa ttc aac aca 514  
Lys Pro Phe Val Cys Ala Ala Thr Gly Cys Asp Gln Lys Phe Asn Thr  
100 105 110

aaa tca aac ttg aag aaa cat ttt gaa cgc aaa cat gaa aat caa caa 562  
Lys Ser Asn Leu Lys Lys His Phe Glu Arg Lys His Glu Asn Gln Gln  
115 120 125

aaa caa tat ata tgc agt ttt gaa gac tgt aag aag acc ttt aag aaa 610  
Lys Gln Tyr Ile Cys Ser Phe Glu Asp Cys Lys Lys Thr Phe Lys Lys  
130 135 140 145

cat cag cag ctg aaa atc cat cag tgc cag cat acc aat gaa cct cta 658  
His Gln Gln Leu Lys Ile His Gln Cys Gln His Thr Asn Glu Pro Leu  
150 155 160

ttc aag tgt acc cag gaa gga tgt ggg aaa cac ttt gca tca ccc agc 706  
Phe Lys Cys Thr Gln Glu Gly Cys Gly Lys His Phe Ala Ser Pro Ser  
165 170 175

aag ctg aaa cga cat gcc aag gcc cac gag ggc tat gta tgt caa aaa 754  
Lys Leu Lys Arg His Ala Lys Ala His Glu Gly Tyr Val Cys Gln Lys  
180 185 190

gga tgt tcc ttt gtg gca aaa aca tgg acg gaa ctt ctg aaa cat gtg 802  
Gly Cys Ser Phe Val Ala Lys Thr Trp Thr Glu Leu Leu Lys His Val  
195 200 205

aga gaa acc cat aaa gag gaa ata cta tgt gaa gta tgc cgg aaa aca 850  
Arg Glu Thr His Lys Glu Glu Ile Leu Cys Glu Val Cys Arg Lys Thr  
210 215 220 225

ttt aaa cgc aaa gat tac ctt aag caa cac atg aaa act cat gcc cca 898  
Phe Lys Arg Lys Asp Tyr Leu Lys Gln His Met Lys Thr His Ala Pro  
230 235 240

gaa agg gat gta tgt cgc tgt cca aga gaa ggc tgt gga aga acc tat 946  
Glu Arg Asp Val Cys Arg Cys Pro Arg Glu Gly Cys Gly Arg Thr Tyr  
245 250 255

act act gtg ttt aat ctc caa agc cat atc ctc tcc ttc cat gag gaa 994  
Thr Thr Val Phe Asn Leu Gln Ser His Ile Leu Ser Phe His Glu Glu  
260 265 270

agc cgc cct ttt gtg tgt gaa cat gct ggc tgt ggc aaa aca ttt gca 1042  
Ser Arg Pro Phe Val Cys Glu His Ala Gly Cys Gly Lys Thr Phe Ala  
275 280 285

atg aaa caa agt ctc act agg cat gct gtt gta cat gat cct gac aag 1090  
Met Lys Gln Ser Leu Thr Arg His Ala Val Val His Asp Pro Asp Lys  
290 295 300 305

aag aaa atg aag ctc aaa gtc aaa aaa tct cgt gaa aaa cgg agt ttg 1138  
Lys Lys Met Lys Leu Lys Val Lys Lys Ser Arg Glu Lys Arg Ser Leu

31

310

315

320

gcc tct cat ctc agt gga tat atc cct ccc aaa agg aaa caa ggg caa 1186  
 Ala Ser His Leu Ser Gly Tyr Ile Pro Pro Lys Arg Lys Gln Gly Gln  
 325 330 335

ggc tta tct ttg tgt caa aac gga gag tca ccc aac tgt gtg gaa gac 1234  
 Gly Leu Ser Leu Cys Gln Asn Gly Glu Ser Pro Asn Cys Val Glu Asp  
 340 345 350

aag atg ctc tcg aca gtt gca gta ctt acc ctt ggc taa 1273  
 Lys Met Leu Ser Thr Val Ala Val Leu Thr Leu Gly  
 355 360 365

&lt;210&gt; 2

&lt;211&gt; 365

&lt;212&gt; PRT

&lt;213&gt; Human

&lt;400&gt; 2

Met Asp Pro Pro Ala Val Val Ala Glu Ser Val Ser Ser Leu Thr Ile  
 1 5 10 15

Ala Asp Ala Phe Ile Ala Ala Gly Glu Ser Ser Ala Pro Thr Pro Pro  
 20 25 30

Arg Pro Ala Leu Pro Arg Arg Phe Ile Cys Ser Phe Pro Asp Cys Ser  
 35 40 45

Ala Asn Tyr Ser Lys Ala Trp Lys Leu Asp Ala His Leu Cys Lys His  
 50 55 60

Thr Gly Glu Arg Pro Phe Val Cys Asp Tyr Glu Gly Cys Gly Lys Ala  
 65 70 75 80

Phe Ile Arg Asp Tyr His Leu Ser Arg His Ile Leu Thr His Thr Gly  
 85 90 95

Glu Lys Pro Phe Val Cys Ala Ala Thr Gly Cys Asp Gln Lys Phe Asn  
 100 105 110

Thr Lys Ser Asn Leu Lys Lys His Phe Glu Arg Lys His Glu Asn Gln  
 115 120 125

Gln Lys Gln Tyr Ile Cys Ser Phe Glu Asp Cys Lys Lys Thr Phe Lys  
 130 135 140

Lys His Gln Gln Leu Lys Ile His Gln Cys Gln His Thr Asn Glu Pro  
 145 150 155 160

Leu Phe Lys Cys Thr Gln Glu Gly Cys Gly Lys His Phe Ala Ser Pro  
 165 170 175

Ser Lys Leu Lys Arg His Ala Lys Ala His Glu Gly Tyr Val Cys Gln  
 180 185 190

B11

Lys Gly Cys Ser Phe Val Ala Lys Thr Trp Thr Glu Leu Leu Lys His  
195 200 205

Val Arg Glu Thr His Lys Glu Glu Ile Leu Cys Glu Val Cys Arg Lys  
210 215 220

Thr Phe Lys Arg Lys Asp Tyr Leu Lys Gln His Met Lys Thr His Ala  
225 230 235 240

Pro Glu Arg Asp Val Cys Arg Cys Pro Arg Glu Gly Cys Gly Arg Thr  
245 250 255

Tyr Thr Thr Val Phe Asn Leu Gln Ser His Ile Leu Ser Phe His Glu  
260 265 270

Glu Ser Arg Pro Phe Val Cys Glu His Ala Gly Cys Gly Lys Thr Phe  
275 280 285

Ala Met Lys Gln Ser Leu Thr Arg His Ala Val Val His Asp Pro Asp  
290 295 300

Lys Lys Lys Met Lys Leu Lys Val Lys Lys Ser Arg Glu Lys Arg Ser  
305 310 315 320

Leu Ala Ser His Leu Ser Gly Tyr Ile Pro Pro Lys Arg Lys Gln Gly  
325 330 335

Gln Gly Leu Ser Leu Cys Gln Asn Gly Glu Ser Pro Asn Cys Val Glu  
340 345 350

Asp Lys Met Leu Ser Thr Val Ala Val Leu Thr Leu Gly  
355 360 365

B1  
<210> 3  
<211> 1273  
<212> DNA  
<213> Human

<400> 3  
atgcgcagca gcggcgccga cgcggggcgg tgccgtgtga ccgcgcgcgc tcccggaagt 60  
gtgccggcgt cgcgcgaagg ttcagcaggg agccgtgggc cgggcgcgcc gggtcccggc 120  
acgtgtctcg gcacgtggca gcgcgcctgg ccctgggctt ggaggcgcgc gcgccctgga 180  
tccgcgggcc gtggtcgccg agtcggtgtc gtccttgacc atgcgcgacg cggttcattgc 240  
agccggcgag agctcagctc cgaccccgcc gcgccccgcg cttcccagga gggtcatctg 300  
ctccttccct gactgcagcg ccaattacag caaagcctgg aagcttgacg cgcacctgtg 360  
caagcacacg ggggagagac catttgtttg tgactatgaa ggggtgtggca aggccttcat 420  
cagggactac catctgagcc gccacattct gactcacaca ggagaaaagc cgtttgtttg 480  
tgcagccact ggctgtgatc aaaaattcaa cacaaaatca aacttgaaga aacattttga 540

acgcaaacat gaaaatcaac aaaaacaata tatatgcagt tttgaagact gtaagaagac 600  
 ctttaagaaa catcagcagc tgaaaatcca tcagtgccag cataccaatg aacctctatt 660  
 caagtgtacc caggaaggat gtgggaaaca ctttgcata cccagcaagc tgaaacgaca 720  
 tgccaaggcc cagcagggct atgtatgtca aaaaggatgt tcctttgtgg caaaaacatg 780  
 gacggaactt ctgaaacatg tgagagaaac ccataaagag gaaatactat gtgaagtatg 840  
 ccggaanaa tttaaacgca aagattacct taagcaacac atgaaaactc atgccccaga 900  
 aagggatgta tgtcgtgtc caagagaagg ctgtggaaga acctatacta ctgtgtttaa 960  
 tctccaaagc catatcctct ccttccatga ggaaagccgc ccttttgtgt gtgaacatgc 1020  
 tggctgtggc aaaacatttg caatgaaaca aagtctcact aggcattgtg ttgtacatga 1080  
 tcctgacaag aagaaaatga agtcaaagt caaaaaatct cgtgaaaaac ggagtttggc 1140  
 ctctcatctc agtggatata tccctcccaa aaggaaacaa gggcaaggct tatctttgtg 1200  
 tcaaaacgga gagtcacca actgtgtgga agacaagatg ctctcgacag ttgcagtact 1260  
 tacccttggc taa 1273

<210> 4  
 <211> 1213  
 <212> DNA  
 <213> Human

B1  
 <400> 4  
 gtgccggcgc cgcgcgaagg ttcagcaggg agccgtgggc cgggcgcgcc ggttcccggc 60  
 acgtgtctcg gcacgtggca gcgcgcctgg ccctgggctt ggaggcgcg gcgccctgga 120  
 tccgccggcc gtggtcgccg agtcggtgtc gtccttgacc atcgccgacg cgttcattgc 180  
 agccggcgag agtcagctc cgaccccgcc gcgccccgag cttcccagga ggttcatctg 240  
 ctcttccct gactgcagcg ccaattacag caaagcctgg aagcttgacg cgcacctgtg 300  
 caagcacacg ggggagagac catttgtttg tgactatgaa ggggtgtggc aggccttcat 360  
 cagggactac catctgagcc gccacattct gactcacaca ggagaaaagc cgtttgtttg 420  
 tgcagccact ggctgtgatc aaaaattcaa cacaaaatca aacttgaaga aacattttga 480  
 acgcaaacat gaaaatcaac aaaaacaata tatatgcagt tttgaagact gtaagaagac 540  
 ctttaagaaa catcagcagc tgaaaatcca tcagtgccag cataccaatg aacctctatt 600  
 caagtgtacc caggaaggat gtgggaaaca ctttgcata cccagcaagc tgaaacgaca 660  
 tgccaaggcc cagcagggct atgtatgtca aaaaggatgt tcctttgtgg caaaaacatg 720

gacggaactt ctgaaacatg tgagagaaac ccataaagag gaaatactat gtgaagtatg 780  
 ccggaataca tttaaacgca aagattacct taagcaacac atgaaaactc atgccccaga 840  
 aagggatgta tgtcgctgtc caagagaagg ctgtggaaga acctatacta ctgtgtttta 900  
 tctccaaagc catatcctct ccttccatga ggaaagccgc ccttttgtgt gtgaacatgc 960  
 tggctgtggc aaaacatttg caatgaaaca aagtctcact aggcattgctg ttgtacatga 1020  
 tcctgacaag aagaaaatga agctcaaagt caaaaaatct cgtgaaaaac ggagtttggc 1080  
 ctctcatctc agtggatata tccctcccaa aaggaaacaa gggcaaggct tatctttgtg 1140  
 tcaaacgga gagtcacca actgtgtgga agacaagatg ctctcgacag ttgcagtact 1200  
 tacccttggc taa 1213

<210> 5  
 <211> 34  
 <212> DNA  
 <213> Human

<400> 5  
 cggggtacca aaaatgcgca gcagcggcgc cgac 34

<210> 6  
 <211> 21  
 <212> DNA  
 <213> Human

<400> 6  
 tccttccctg actgcagcgc c 21

<210> 7  
 <211> 20  
 <212> DNA  
 <213> Human

<400> 7  
 tgcacaggtg cgcgtcaagc 20

<210> 8  
 <211> 20  
 <212> DNA  
 <213> Human

<400> 8  
 cacaacaaaa tgggtctctcc 20

<210> 9

B1

<211> 30  
<212> DNA  
<213> Human

<400> 9  
cggtctagat tagccaaggg taagtactgc

30

<210> 10  
<211> 30  
<212> DNA  
<213> Human

B  
<400> 10  
cctcccgggg ccaagggtaa gtactgcaac

30

---